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Draft

To: Kate Miller, TU
Cc: Shoren Brown, TU
From: Geoffrey Y. Parker

Re: 404(c) regulations, 404(b)(1) Guidelines, NEPA regulations

Date: June 28, 2010

The following two charts identify citations that address terms or concepts that are common to the $404(c)^1$ and NEPA processes, deal with the same or similar subjects, and are used similarly, such that interpretation of the terms or concepts for NEPA sheds light on the terms or concepts for 404(c).

Table 1 Citations related to significance and likelihood of impacts: for purposes of Sec. 404 and NEPA

Citations that bear upon significance of impact: for purposes of Sec. 404 of the Clean Water Act.	Citations that bear upon significance of impact: for purposes of NEPA.
A. Significance of impact/effect is presumed unless	A. Significance of impact is assessed.
demonstrated otherwise.	
1. B-1 Guidelines, at 40 CFR 230.1(c), provide: (c) Fundamental to these [404(b)(1)] Guidelines ² is the <i>precept</i> that dredged or fill material should <i>not</i> be discharged into the aquatic ecosystem, <i>unless it</i>	1. 42 U.S.C. 4332(C) requires an EIS for major federal actions "significantly affecting the quality of the human environment." [Italics added]
can be demonstrated that such a discharge will not	2. 40 CFR 1508.27 provides:
have an unacceptable adverse impact either	"Significantly as used in NEPA requires
individually or in combination with <i>known and/or</i>	considerations of both context and intensity:
probable impacts of other activities affecting the	(a) <i>Context</i> . This means that the significance of
ecosystems of concern.	an action must be analyzed in several contexts such
[Italics added]	as society as a whole (human, national), the
	affected region, the affected interests, and the

¹ Section 404(c) of the Clean Water Act, 33 USC 1344(c) (italics added), provides:

⁽c) Denial or restriction of use of defined areas as disposal sites. The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have *an unacceptable adverse effect* on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

² Section 404(b)(1) of the Clean Water Act, 33 USC 1344(b)(1), provides:

⁽b) Specification for disposal sites. Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary

⁽¹⁾ through the application of guidelines developed by the Administrator, in conjunction with the Secretary, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section 1343(c) of this title,

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2. 40 CFR 231.2(e) provides:

- (e) <u>Unacceptable adverse effect</u> means impact on an aquatic or wetland ecosystem which is likely to result in *significant* degradation of municipal *water supplies* (including surface or ground water) or *significant* loss of or damage to *fisheries*, *shellfishing*, *or wildlife habitat or recreation areas*. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines (40 CFR part 230). [Italics partly added]
- 3. 44 Fed. Reg. 58076, 58078 (October 9, 1979) (Note: EPA explains that 404(c) does not balance environmental benefits of a 404(c) action versus non-environmental costs of a project foregone project, unlike NEPA regulations at 40 CFR 1508.27(b)(1), which does consider beneficial impacts.) EPA's explanation states: Several commenters argued that any determination of "unacceptability" should be based on a cost/benefit analysis which takes into account the benefits of the proposed project. In EPA's view, section 404(c) does not require a balancing of environmental benefits against non-environmental costs such as benefits of the foregone project. This view is based on the language of 404(c) which refers only to environmental factors.

The term "unacceptable" in EPA's view refers to the significance of the adverse effect – e.g., is it a large impact and is it one that the aquatic and wetland ecosystem cannot afford.

- **locality.** Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. **Both short- and long-term effects are relevant.**
- (b) *Intensity*. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:
- (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
- (2) The degree to which the proposed action affects public health or safety.
- (3) *Unique characteristics* of the geographic area such as *proximity to* historic or *cultural resources*, *park lands*, prime farmlands, *wetlands*, wild and scenic rivers, or *ecologically critical areas*.
- (4) The degree to which the effects on the quality of the human environment are likely to be *highly controversial*.
- (5) The degree to which the possible effects on the human environment are *highly uncertain or involve unique or unknown risks*.
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- (7) Whether the action is related to other actions with individually insignificant but *cumulatively significant impacts*. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
- (9) The degree to which the action may adversely affect an *endangered or threatened species or its habitat* that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

 [e.g., state land use planning requirements, mineral

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B. Reasonably Likely Impact.

1. 40 CFR 231.2(e) provides:

(e) Unacceptable adverse effect means impact on an aquatic or wetland ecosystem which is *likely* to result in significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines (40 CFR part 230). [Italics partly added]

2. 44 Fed. Reg. 58076, 58078 (October 9, 1979) (EPA's explanation of "unacceptable adverse effect") states:

Several commenters also noted that the [proposed] regulations provided that a recommended determination need only be based on a finding that a discharge "could" have an unacceptable adverse effect. They recommend that this be changed to "will" to reflect the statutory language. EPA has retained the word "could" for the proposed determination but changed to "would be likely to" in connection with the recommended determination. The word "could" is appropriate for the early stage because the preliminary determination merely represents a judgment that the matter is worth looking into. While EPA has used the word 'would' for the later stages in the [404(c)] proceedings, to reflect the statutory language, it is important to note that absolute certainty is not required. Because 404(c) determinations are by their nature based on predictions of future impacts, what is required is a reasonable likelihood that unacceptable adverse effects [i.e., a significant impact] will occur - not absolute certainty but more than mere guesswork.

closing Order 393] [Italics partly added]

B. Reasonably Foreseeable Impact.

1. 40 CFR 1508.3 provides:

Affecting means will or may have an effect on. [Italics added]

2. 40 CFR 1508.7 provides:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and *reasonably foreseeable* future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but *collectively significant* actions taking place *over a period of time*. [Italics added]

Table 2 Citations related to "direct," "secondary" or "indirect," and "cumulative" effects, for purposes of Sec. 404 and NEPA

Terminology related to "direct," "secondary," and	Terminology related to "direct," "indirect," and
"cumulative" effects or impacts, and used to	"cumulative" effects or impacts significantly" and
implement Sec. 404 of the Clean Water Act.	used to implement NEPA.
A. "effects" or "impacts" appear synonymous.	A. "effects" and "impacts" are synonymous.
(The B-1 Guidelines use the terms interchangeably.	1. 40 CFR 1508.8 provides:
The Guidelines seem to include every category of effect	Effects and impacts as used in these regulations are
that is in 40 CFR 15.08.8, except that the Guidelines, at	synonymous. Effects includes ecological (such as
least when used for 404(c), do not balance	the effects on natural resources and on the

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environmental benefits against forgone benefits of the project. See below.)

ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. * * * [Italics added]

components, structures, and functioning of affected

B. Distinguishing direct, secondary and cumulative

effects.

1. Scope of "Direct" Effects. Note: Although "direct" impacts are undefined in 40 CFR Part 230 and 231, the regulations, below, discuss direct impacts in contexts that extend beyond the footprint of a discharge site.

a. 40 CFR 230.52(b) (Water-related recreation) provides:

(b) Possible loss of values: One of the more important direct impacts of dredged or fill disposal is to impair or destroy the resources which support recreation activities. The disposal of dredged or fill material may adversely modify or destroy water use for recreation by changing turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenic organisms, quality of habitat, and the aesthetic qualities of sight, taste, odor, and color. [Italics added]

b. 40 CFR 230.45(b) (Riffle and pool complexes) provides:

(b) Possible loss of values: * * * Sedimentation induced through hydrological modification or as a direct result of the deposition of unconsolidated dredged or fill material may clog riffle and pool areas, destroy habitats, and create anaerobic conditions. * * * [Italics added]

2. Distinguishing direct from secondary effects. a. 40 CFR 230.11(h)(1) provides:

Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material." [Italics added]

b. 40 CFR 230.51(b) (Recreational and commercial fisheries) provides:

(b) Possible loss of values: The discharge of dredged or fill materials can affect the suitability of recreational and commercial fishing grounds as habitat for populations of consumable aquatic organisms. Discharges can result in the chemical contamination of recreational or commercial fisheries. They may also interfere with the reproductive success of recreational and commercially important aquatic species through disruption of migration and spawning areas. The

B. Distinguishing direct, indirect and cumulative impacts.

1. Scope of "Direct" Effects.

a. 40 CFR 1508.8(a) provides:

(a) Direct effects, which are caused by the action and occur at the same time and place.

2. Distinguishing direct from indirect effects. a. 40 CFR 1508.8(b) provides:

(b) *Indirect effects*, which are *caused by* the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. [Italics added]

Note: Under the B-1 Guidelines, "direct" effects are undefined. However, they are not limited to the "footprint" of where dredge or fill material is placed (as I had erroneously said). They include effects, such as sedimentation and loss of habitat, that occur elsewhere and arise directly from the placement of dredged or fill material. (Under NEPA regulations,

introduction of pollutants at critical times in their life cycle may directly reduce populations of commercially important aquatic organisms or indirectly reduce them by reducing organisms upon which they depend for food. Any of these impacts can be of short duration or prolonged, depending upon the physical and chemical impacts of the discharge and the biological availability of contaminants to aquatic organisms." [Italics added]

such effects might not be "direct" effects occurring "at that same time and place" as the federal action (see 40 CFR 1508.8, above), so the effect might be "indirect" effects.)

3. Cumulative impacts.

a. 40 CFR 230.11(g)(1) provides:

Cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. [Italics added]

3. Cumulative impact.

a. 40 CFR 1508.7 provides:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. [Italics added]

Conclusions

1. The B-1 Guidelines impose a **rebuttable presumption** that dredge and fill material should not be discharged into waters and wetlands. To do so requires demonstrating that no unacceptable adverse impact will occur, "either individually or in combination with known or probable impacts of other activities affecting the ecosystems of concern." This rebuttable presumption implies that the test for *significance* of an effect is: **A significant effect is presumed**.³ Otherwise, the rebuttable presumption would not exist.

Regardless of whether the Corps implements this rebuttable presumption in adjudicating permits, EPA can do so for purposes of 404(c) by virtue of 40 CFR 231.1(c).

2. For purposes of 404(c) specifically, and impacts to water supplies, fisheries, wildlife and recreation:

³ This rebuttable presumption renders insignificant the fact that the Guidelines do not define the terms "significant" and "unacceptable." Only the 404(c) regulations attempt to do so, by defining "unacceptable adverse effect" in terms of a "significant" effect. Instead, the Corps uses the Guidelines to assess, for purposes of the presumption, whether an applicant has demonstrated that a discharge will not have an unacceptable adverse impact "either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern." The 404(c) process does not require such demonstration, because EPA does not issue a 404 permit. Instead, EPA need only be reasonable in presuming an unacceptable adverse effect. In other words, as long as EPA is reasonable, it can presume the unacceptable adverse effect and need not require demonstration that the effect does not occur.

- a. 404(c) requires a "reasonable likelihood" of an unacceptable adverse effect "not absolute certainty but more than mere guesswork." EPA considers relevant portions of the Guidelines to determine impacts.
- b. The definition of "unacceptable adverse effect" equates an "unacceptable" impact to a "significant" impact, is specific to 404(c), and controls any argument to the contrary arising from the lack of a definition for 404 generally. An unacceptable/significant impact is large and one the ecosystem cannot afford.
 - c. EPA does not balance environmental benefits versus costs to applicants.
- 3. NEPA regulations that address significance of impact and reasonably foreseeable cumulative impacts **shed light** on how EPA, for purposes of 404(c), might assess the significance or unacceptability of impacts. EPA might do so by assessing: (i) context, (ii) intensity, (iii) reasonable likelihood or foreseeability of impact; (iv) impacts over a period of time, and (v) taking account of cumulative effects. It seems reasonable to presume impacts and assess them by such means.

For purposes of Pebble and 404(c), the unacceptability (or significance) of an effect can be assessed in light of the *pari materia* NEPA regulation at 40 CFR 1508.27, which addresses:

- (a) context (analysis in several contexts such as society as a whole, the affected region, affected interests, locality, and short- and long-term effects); and
 - (b) intensity i.e., severity of impact, based on evaluating
 - (i) public health or safety,
- (ii) unique characteristics such as proximity to cultural resources, park lands, wetlands, or ecologically critical areas,
 - (iii) controversy,
 - (iv) highly uncertain or unique or unknown risks,
- (v) whether the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration,
 - (vi) cumulatively significant impacts,
- (vii) whether the action may adversely affect an endangered or threatened species or its critical habitat, and
- (viii) whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. [e.g., state land use planning requirements, mineral closing Order 393] [Italics partly added]